STRUCTURAL NOTES PUMP CONTROL PANEL SHELTER

A. STRUCTURAL STEEL

1. ALL HOT ROLLED STRUCTURAL STEEL SHAPES, UNLESS OTHERWISE APPROVED, SHALL CONFORM TO ASTM A 572 OR ASTM A992 WHERE AVAILABLE. OTHER SHAPES AND FABRICATIONS SHALL CONFORM TO ASTM A36. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE CURRENT EDITION OF ANSI "SPECIFICATIONS FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS." ALL WELDING SHALL CONFORM TO AWS "STRUCTURAL WELDING CODE D1.1" USING E70XX ELECTRODES.
2. ALL STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANIZED.
3. UNLESS OTHERWISE NOTED OR APPROVED, ANCHOR BOLT MATERIAL SHALL BE ALLOY 18-8 STAINLESS STEEL WITH 18-8 STAINLESS STEEL NUTS.
4. ALL CONNECTIONS SHALL BE IN STRICT ACCORDANCE WITH THE AISC SPECIFICATIONS AND AWS CODES. UNLESS OTHERWISE SHOWN, ALL BOLTED FRAMING CONNECTIONS SHALL BE ASTN A 325 BOLTS DESIGNED AND DETAILED IN ACCORDANCE WITH THE 2002 AISC GUIDE FOR DETAILING STEEL CONSTRUCTION. BOLTS SHALL BE GALVANIZED.

B. FIBERGLASS ROOF DECK

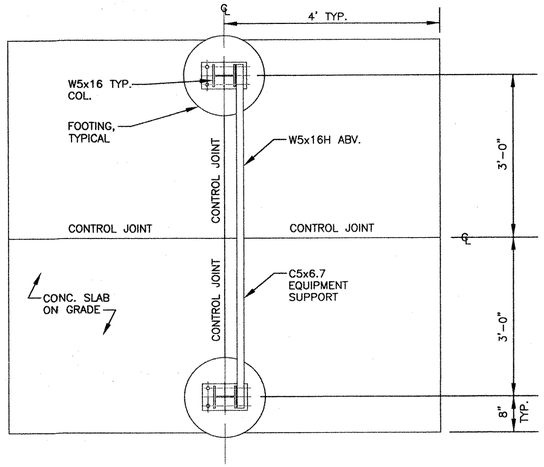
FIBERGLASS ROOF DECKING SHALL BE EQUAL TO "TUFF SPAN 7.0X1.5 RIB DECK FR 450 SERIES AS MANUFACTURERED BY ENDURO SYSTEMS, INC. DECKING SHALL BE GRAY TRANSLUCENT MATERIAL AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS USING STAINLESS STEEL SELF DRILLING SCREWS. FURNISH DECK WITH ALL REQUIRED INSTALLATION ACCESSORIES.

C. CONCRETE

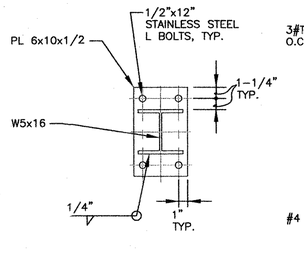
1. UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL BE AIR ENTRAINED (3-1/2% - 6-1/2%) WITH A MAXIMUM SLUMP OF 4 INCHES. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI) 318.02. CONCRETE SHALL ATTAIN A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI. PROVIDE 3/4" CHAMFER AT ALL EXPOSED CONCRETE CORNERS.
2. ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATIONS A615, GRADE 60 FOR BARS AND A185 FOR WELDED WIRE FABRIC. PROVIDE CONCRETE COVER OVER REINFORCING BARS IN ACCORDANCE WITH ACI 318. HOOKS SHOWN SHALL BE STANDARD HOOKS UNLESS OTHERWISE DIMENSIONED.
3. CONSTRUCTION AND CONTROL JOINTS IN THE SLAB SHALL BE FORMED WITH PRE-MOLDED PLASTIC PULL OUT CONTROL JOINT FORM, GREENSTREAK 852 OR EQUAL OR JOINTS SHALL BE SAW CUT MAXIMUM 3/8" WIDE.
4. WHERE FLOOR SLAB ADJOINS OTHER CONCRETE CONSTRUCTION, THE JOINT BOND SHALL BE BROKEN WITH BUILDING PAPER OR CURING COMPOUND AND 1/2" EXPANSION MATERIAL SHALL BE INSTALLED. AFTER CURING, THE JOINT SHALL BE CAULKED WITH A HIGH QUALITY ONE PART POLYURETHANE SEALANT.

D. FOUNDATIONS & FILL

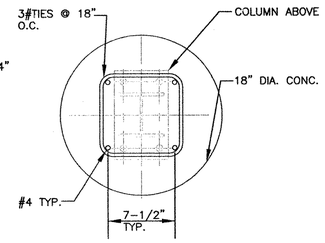
1. FOR FOUNDATIONS, PROVIDE A MINIMUM ALLOWABLE BEARING CAPACITY OF 1500 PSF.
2. ALL FOUNDATIONS SHALL BEAR ON COMPACTED STRUCTURAL FILL OR SUITABLE NATURAL SOIL. IF UNSUITABLE MATERIAL IS ENCOUNTERED AT FOOTING SUBGRADE ELEVATIONS, REMOVE AND REPLACE WITH COMPACTED STRUCTURAL FILL. FOOTINGS IN ROCK CUT AREAS SHALL BE UNDERCUT AND BEAR ON 1' - 0" OF COMPACTED STRUCTURAL FILL COMPACTED TO 85 PERCENT (+3%) OF MAXIMUM DRY DENSITY PER ASTM D-698 STANDARD PROCTOR SUPPORTED BY SOLID ROCK OR DISINTEGRATED ROCK.
3. SLABS ON GRADE SHALL BE SUPPORTED BY 6 INCHES OF SDR #57 STONE ON COMPACTED FILL. THE STONE SHALL BE COMPACTED IN PLACE BY AT LEAST TWO PASSES WITH A VIBRATORY PLATE COMPACTOR. IF UNSUITABLE SOILS ARE ENCOUNTERED AT THE FLOOR SLAB SUBGRADE LEVEL, REMOVE AND REPLACE SUBGRADE LEVEL, REMOVE AND REPLACE WITH COMPACTED FILL. WHERE ROCK IS ENCOUNTERED AT FLOOR SLAB SUBGRADE LEVELS, UNDERCUT AND PROVIDE 6" MINIMUM OF COMPACTED BACKFILL.
4. UNLESS NOTED OTHERWISE SLABS ON GRADE SHALL BE 4" THICK REINFORCED WITH 6x6 -W 2.0 W.W.F.
5. COMPACTED STRUCTURAL FILL AND COMPACTED BACKFILL SHALL BE AS FOLLOWS:
   a. COMPACTED STRUCTURAL FILL SHALL BE MH, CL, ML, SC, SP, SW, GC, GM, GP, OR GW MATERIAL IN ACCORDANCE WITH ASTM D-2487-83 AND SHALL HAVE A PLASTICITY INDEX OF 20 OR LESS.
   b. COMPACTED BACKFILL SHALL CONSIST OF NON-PLASTIC SM, SP, SW, GM, GP, OR GW MATERIAL FOR ASTM D- 2487-83, WITH A MAXIMUM 25% FINES.
   c. SHALL BE PLACED IN HORIZONTAL LOOSE LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS.
   d. ALL FILL MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY PER STANDARD PROCTOR (ASTM D-698) EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.
6. CONCRETE SHALL BE PLACED IN EXPEDIENT MANNER ONCE EXCAVATIONS ARE MADE TO AVOID WEATHER DAMAGE (SOFTENING, SHRINKAGE CRACKING) TO THE SOIL. ANY SUBGRADES DAMAGED BY WEATHER SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
7. ONLY LIGHT HAND OPERATED COMPACTION OF EQUIPMENT SHALL BE USED WITHIN TEN FEET OF BELOW GRADE WALLS.



4 FLOOR PLAN
SCALE: 3/4"=1'-0"



A SECTION
SCALE: 1-1/2"=1'-0"



B SECTION
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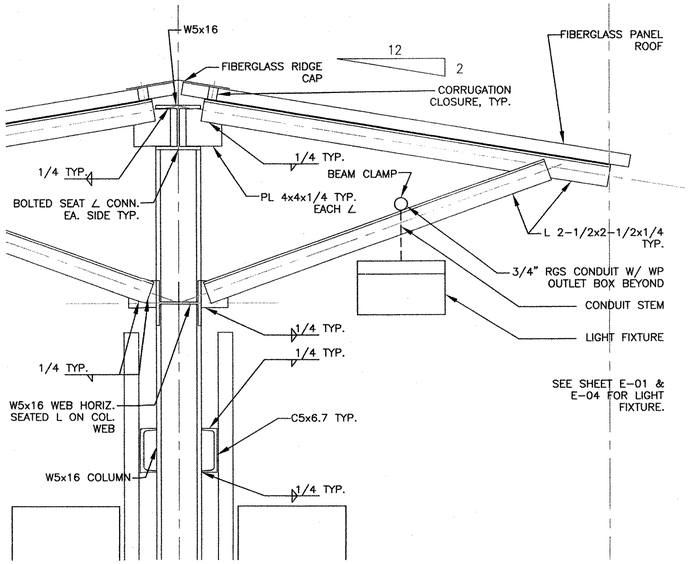

2 DETAIL
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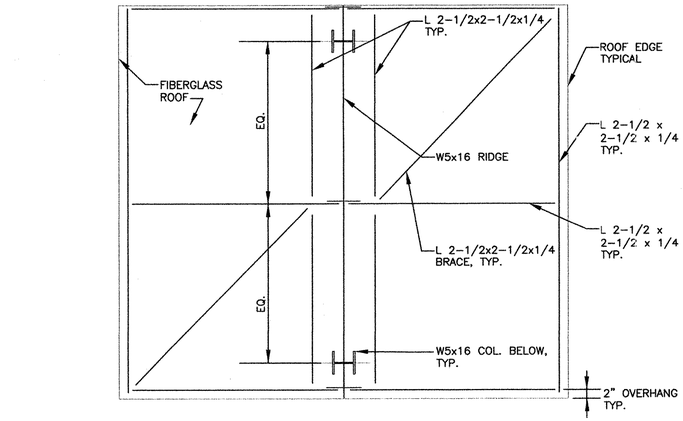
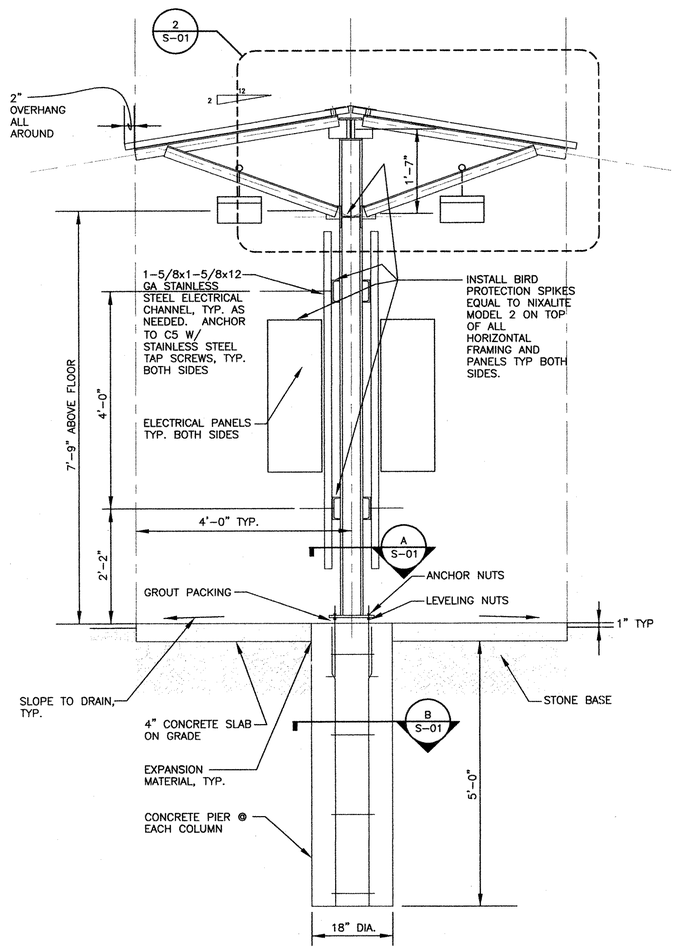


3 ROOF PLAN
SCALE: 3/4"=1'-0"



1 PUMP CONTROL SHELTER SECTION
SCALE: 3/4"=1'-0"

Dewberry

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LOUDOUN COUNTY SOLID WASTE MANAGEMENT FACILITY

LEACHATE PUMP STATIONS & FORCE MAIN

LOUDOUN COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
DAVID W. BLEVINS
Lic No.7695
PROFESSIONAL ENGINEER
4/10/09

SCALE

No.	DATE	BY	Description

REVISIONS

DRAWN BY	YR
APPROVED BY	DB
CHECKED BY	DB
DATE	4/7/09

TITLE

ELECTRICAL SHELTER STRUCTURAL DETAILS

PROJECT NO. 50006147

S-01

SHEET NO. 4 OF 12

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